

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017868**Date Inspected:** 21-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

OBG # TRIAL ASSEMBLY YARD

**WELDING****Segment # 10CW**

This QA inspector observed ZPMC qualified welding personnel identified as 040320 perform Shielded Metal Arc Welding (SMAW), weld joint identified as CA082-001 & CA084-005; located On Orthotropic Box Girder (OBG) Edge Plate to Side Plate CJP Weld; excavated weld due to UT rejected areas. The Welding Repair Report (WRR) was B-WR16072. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 4G (4F) FCM Repair-1 See the attached Photo.

**Segment # 10CW**

This QA inspector observed ZPMC qualified welding personnel identified as 044515 perform Shielded Metal Arc

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Welding (SMAW), weld joint identified as CA081-006 & SEG068\*-044; located On Orthotropic Box Girder (OBG) Deck Plate to Edge Plate CJP Weld; excavated weld due to UT rejected areas. The Welding Repair Report (WRR) was B-WR16073. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 2G (2F) FCM Repair-1.

### Segment # 10CW

This QA inspector observed ZPMC qualified welding personnel identified as 044515 perform Shielded Metal Arc Welding (SMAW), weld joint identified as OBE11B-003; located On Orthotropic Box Girder (OBG) Edge Plate to Side Plate CJP Weld; excavated weld due to UT rejected areas. The Critical Welding Repair Report (CWRR) was B-CWR2072. ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW 4G (4F) FCM Repair-1 See the attached Photo.

### Segment # 10AE/FL3 (I-Rib Hold Back Weld)

This QA inspector performed Magnetic Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Orthotropic Box Girder (OBG) Components. The weld designations reviewed are as follows.

FB020-PP086-001, 002, 005, 006, 015, 016.  
FB024-PP87-001, 002, 005, 006, 017, 018, 128.  
FB028-PP88-001, 002, 005, 006, 015, 016.  
BP026-PP87-028, 029, 038, 039.  
SEG60EPP87-149, 150, 077, 078, 113, 114, 095, 096.  
SEG60D-PP87-025, 026, 016, 017

Nondestructive testing (NDT) notification No. 07038

### Segment # CB 13

This QA inspector performed Magnetic Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT reports for this date. The members are identified as Orthotropic Box Girder (OBG) Components. The weld designations reviewed are as follows.

FB202-013-007,008  
FB203-013-013,014  
SP201-013-013,014  
SP202-013-018,019  
SP203-013-044,045  
SP204-013-013,014

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SP205-013-018,019  
BP202-013-007,008,011,012  
BP203-013-007,008,011,012  
DP202-013-021,022  
DP203-013-021,022

Nondestructive testing (NDT) notification No. 07046

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 15000422372, who represents the Office of Structural Materials for your project.

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| <b>Inspected By:</b> | Prabhune,Manoj   | Quality Assurance Inspector |
| <b>Reviewed By:</b>  | Patterson,Rodney | QA Reviewer                 |

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